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PATENT
Attorney Docket No.: 20174C-000620US

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

On April 4, 2005

TOWNSEND and TOWNSEND and CREW LLP

By: 
Randolph Ted Apple

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Charles F. Spence, et. al

Application No.: 09/928,590

Filed: August 13, 2001

For: MICRO-FABRICATED CELL
SORTER FOR CHEMICAL AND
BIOLOGICAL MATERIALS

Examiner: Jeffrey Thomas Barton

Art Unit: 1753

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. In accordance with 37 CFR §1.98(d), copies of the references (excepting references numbered 0044, 0050, 0054 and 0057) can be found in Application No. 09/325,667, filed May 21, 1999, now U.S. Patent No. 6,540,598 B1, issued April 1, 2003. In the case of the above-excepted references, copies of the non-U.S. patent documents are enclosed.

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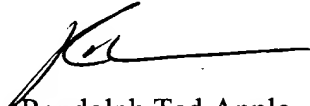
It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

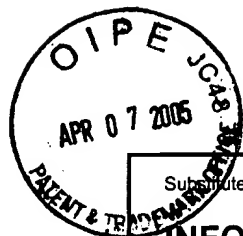
Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



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Reg. No. 36,429

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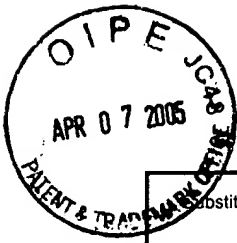
Substitute for form 1449A&B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
Application Number				09/928,590	
Filing Date				August 13, 2001	
First Named Inventor				Spence, Charles F.	
Art Unit				1753	
Examiner Name				Jeffrey Thomas Barton	
Attorney Docket Number				20174C-000620US	
Sheet	1	of	5		

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	0001	US-6,221,654	04-24-01	Quake et al.	
	0002	US-5,932,100	08-03-99	Yager et al.	
	0003	US-5,922,591	07-13-99	Anderson et al.	
	0004	US-5,904,824	05-18-99	Oh	
	0005	US-5,885,470	03-23-99	Parce et al.	
	0006	US-5,880,071	03-09-99	Parce et al.	
	0007	US-5,869,004	02-09-99	Parce et al.	
	0008	US-5,856,174	01-05-99	Lipshutz et al.	
	0009	US-5,852,495	12-22-98	Parce	
	0010	US-5,837,200	11-17-98	Diessel et al.	
	0011	US-5,800,690	09-01-98	Chow et al.	
	0012	US-5,757,482	05-26-98	Fuchs et al.	
	0013	US-5,750,015	05-12-98	Soane et al.	
	0014	US-5,726,751	03-10-98	Altendorf et al.	
	0015	US-5,726,404	03-10-98	Brody et al.	
	0016	US-5,716,852	02-10-98	Yager et al.	
	0017	US-5,702,618	12-30-97	Saaski et al.	
	0018	US-5,681,484	10-28-97	Zanzucchi et al.	
	0019	US-5,661,222	08-26-97	Hare	
	0020	US-5,646,039	07-08-97	Northrup et al.	
	0021	US-5,641,400	06-24-97	Kaltenbach et al.	
	0022	US-5,639,423	06-17-97	Northrup et al.	
	0023	US-5,637,469	06-10-97	Wilding et al.	
	0024	US-5,632,876	05-27-97	Zanzucchi et al.	
	0025	US-5,589,136	12-31-96	Northrup et al.	
	0026	US-5,580,523	12-03-96	Bard	
	0027	US-5,571,410	11-05-96	Swedberg et al.	
	0028	US-5,558,998	09-24-96	Hammond et al.	
	0029	US-5,512,131	04-30-96	Kumar et al.	

Examiner Signature		Date Considered	
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



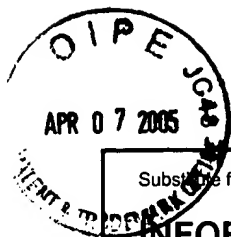
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				First Named Inventor	Spence, Charles F.
				Art Unit	1753
				Examiner Name	Jeffrey Thomas Barton
Sheet	2	of	5	Attorney Docket Number	20174C-000620US

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Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	0030	US-5,500,071	03-19-96	Kaltenbach et al.	
	0031	US-5,498,392	03-12-96	Wilding et al.	
	0032	US-5,486,335	01-23-96	Wilding et al.	
	0033	US-5,454,472	10-03-95	Benecke et al.	
	0034	US-5,452,878	09-26-95	Gravensen et al.	
	0035	US-5,417,235	05-23-95	Wise et al.	
	0036	US-5,376,252	12-27-94	Ekstrom et al.	
	0037	US-5,304,487	04-19-94	Wilding et al.	
	0038	US-5,271,724	12-21-93	van Lintel	
	0039	US-5,164,598	11-17-92	Hillman et al.	
	0040	US-5,140,161	08-18-92	Hillman et al.	
	0041	US-5,126,022	06-30-92	Soane et al.	
	0042	US-5,032,381	07-16-91	Bronstein et al.	
	0043	US-4,963,498	10-16-90	Hillman et al.	
	0044	US-4,936,465	06-26-90	Zold	
	0045	US-4,908,112	03-13-90	Pace	
	0046	US-4,786,165	11-22-88	Yamamoto et al.	
	0047	US-4,675,300	06-23-87	Zare et al.	
	0048	US-4,585,209	04-29-86	Aine et al.	
	0049	US-4,581,624	04-08-86	O'Connor	
	0050	US-3,984,307	10-05-76	Kamentsky et al.	
	0051	US-3,560,754	02-02-71	Kamentsky	
	0052	US-2,656,508	10-20-53	Coulter	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	0053	WO	98/52691	A	01-26-99			<input type="checkbox"/>
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Substitute for form 1449A&B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **3** of **5****Complete if Known**

Application Number	09/928,590
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First Named Inventor	Spence, Charles F.
Art Unit	1753
Examiner Name	Jeffrey Thomas Barton
Attorney Docket Number	20174C-000620US

FOREIGN PATENT DOCUMENTS

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	0055	WO	98/08931	A	03-05-98			<input type="checkbox"/>
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	0059	WO	96/04547	A	02-15-96			<input type="checkbox"/>
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	0061	WO	94/05414	A	03-17-94			<input type="checkbox"/>
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	0064	EP	0 745 682	A	12-04-96			<input type="checkbox"/>
	0065	GB	2264496		01-09-93			<input type="checkbox"/>

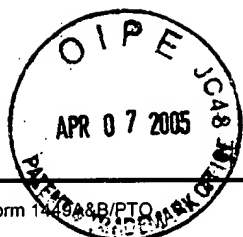
NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	0066	J. Affholter and F. Arnold, "Engineering a Revolution," <i>Chemistry in Britain</i> , Apr. 1999, p. 48.	
	0067	Angell et al., <i>Scientific American</i> 248 :44-55 (1983).	
	0068	F. H. Arnold, <i>Acct. Chem. Research</i> 31 , 125-131 (1998).	
	0069	A. Ashkin, J. M. Dziedzic, <i>Nature</i> 330 , 769 (1987).	
	0070	A. Ashkin, J. M. Dziedzic, <i>Science</i> 235 , 1517 (1987).	
	0071	Ballantyne, J.P., et al., <i>J. Vac. Sci. Technol.</i> 10 :1094 (1973).	
	0072	Bein, Thomas, Efficient Assays for Combinatorial Methods for the Discovery of Catalysts, <i>Angew. Chem. Int. Ed.</i> 38 :3, 323-26 (1999).	
	0073	T. N. Buican, M. J. Smyth, H. A. Verissman, <i>Applied Optics</i> 26 , 5311 (1987).	

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Considered

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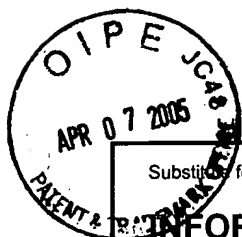
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known	
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			<i>Examiner Name</i>	Jeffrey Thomas Barton
			<i>Attorney Docket Number</i>	20174C-000620US
Sheet	4	of	5	

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Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	0074	Castro, A., et al., <i>Anal. Chem.</i> 85 :849-852 (1993).	
	0075	Chou, Hou-Pu et al., <i>Proc. Natl. Acad. Sci. USA</i> , 96 :11-13, Jan. 1999.	
	0076	P. J. Crosland-Taylor, <i>Nature (London)</i> 171 , 37 (1953).	
	0077	S. Fiedler, et al. "Dielectrophoretic Sorting of Particles and Cells in a Microsystem" <i>Analytical Chemistry</i> 70 , 1909-1915 (1998).	
	0078	M. J. Fulwyer, <i>Science</i> 156 , 910 (1974).	
	0079	Goodwin, P.M., et al., <i>Nucleic Acids Research</i> 21 (4):803-806 (1993).	
	0080	Hanes, J. & Pluckthun A. <i>Proc. Natl. Acad. Sci., USA</i> 94 , 4937 (1997).	
	0081	D.J. Harrison et al., <i>Science</i> , 261 : 895 (1993).	
	0082	Hoffmuller, U. & J. Schneider-Mergener, <i>Angew. Chemie. Int. Ed.</i> 37 , 3241-3243 (1998).	
	0083	Jermutus, L., L. A. Ryabova & A. Pluckthun, <i>Curr. Opin. Biotechnol</i> 9 , 534-548 (1998).	
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	0087	Paul C.H. Li et al, "Transport Manipulation, and Reaction of Biological Cells On-Chip Using Electrokinetic Effects" <i>Analytical Chemistry</i> vol. 69 , No. 8, pp. 1564-1568, Apr. 15, 1999.	
	0088	Manz et al., <i>Trends in Analytical Chemistry</i> 10 : 144-149 (1991).	
	0089	A. Moldavan, <i>Science</i> 80 (2069), 188 (1934).	
	0090	J. P. Nolan, L. A. Sklar, <i>Nature Biotechnology</i> 16 , 633 (1998).	
	0091	Roberts, R. W. & Szostak, J. W. <i>Proc. Natl. Acad. Sci USA</i> 94 , 12297-12302 (1997).	
	0092	L. A. Sklar, <i>Proc. SPIE</i> 3256 , 144 (1998).	
	0093	Stemmer, W. P. C. <i>Nature</i> , 370 , 389 (1994).	
	0094	R. Sweet, "Flow Sorters for Biologic Cells." In: <i>Flow Cytometry and Sorting</i> , Melamed et al., eds. John Wiley & Sons:New York, pp. 177-189 (1979).	
	0095	Tawfik, D. and Griffiths, A <i>Nat. Biotechnol.</i> 16 , 656 (1998).	

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		Filing Date	August 13, 2001		
		First Named Inventor	Spence, Charles F.		
		Art Unit	1753		
		Examiner Name	Jeffrey Thomas Barton		
Sheet	5	of	5	Attorney Docket Number	20174C-000620US

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	0096	Thompson, L.F., "Introduction to Lithography", ACS Symposium Series 219:1-13, (1983).	
	0097	Todd et al., "Cell Electrophoresis." In: <i>Flow Cytometry and Sorting</i> . Melamed et al., eds. John Wiley & Sons: New York, pp. 217-229 (1979).	
	0098	M. A. Van Dilla, T. T. Trujillo, P. F. Mullaney, <i>Science</i> 163, 1213 (1969).	
	0099	Xia et al., <i>Ange. Chem. Int. Ed.</i> , 37:550-575 (1998).	

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